

PCT

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INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference DC.P300371PCT	FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/GB00/02812	International filing date (day/month/year) 20/07/2000	Priority date (day/month/year) 20/07/1999
International Patent Classification (IPC) or national classification and IPC H03K17/96		
Applicant STATUS HI-TECH LIMITED		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.



2. This REPORT consists of a total of 8 sheets, including this cover sheet.

- ☐ This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of sheets.

3. This report contains indications relating to the following items:

- I ☒ Basis of the report
- II ☐ Priority
- III ☒ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV ☒ Lack of unity of invention
- V ☒ Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☒ Certain defects in the international application
- VIII ☒ Certain observations on the international application

Date of submission of the demand 20/02/2001	Date of completion of this report 15.11.2001
Name and mailing address of the international preliminary examining authority:  European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 eprmu d Fax: +49 89 2399 - 4465	Authorized officer Santos, P Telephone No. +49 89 2399 8359 

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I. Basis of the report

1. With regard to the **elements** of the international application (*Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17)*):

Description, pages:

1-17 as originally filed

Claims, No.:

1-38 as originally filed

Drawings, sheets:

1/2-2/2 as originally filed

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- ☐ the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

- ☐ the description, pages:
- ☐ the claims, Nos.:

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- ☐ the drawings, sheets:
5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)):
(Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)
6. Additional observations, if necessary:

III. Non-establishment of opinion with regard to novelty, inventive step and industrial applicability

1. The questions whether the claimed invention appears to be novel, to involve an inventive step (to be non-obvious), or to be industrially applicable have not been examined in respect of:
- ☐ the entire international application.
- ☒ claims Nos. 16-27,30,35-38.

because:

- ☐ the said international application, or the said claims Nos. relate to the following subject matter which does not require an international preliminary examination (*specify*):
- ☒ the description, claims or drawings (*indicate particular elements below*) or said claims Nos. 35-38 are so unclear that no meaningful opinion could be formed (*specify*):
see separate sheet
- ☐ the claims, or said claims Nos. are so inadequately supported by the description that no meaningful opinion could be formed.
- ☒ no international search report has been established for the said claims Nos. 16-27,30.
2. A meaningful international preliminary examination cannot be carried out due to the failure of the nucleotide and/or amino acid sequence listing to comply with the standard provided for in Annex C of the Administrative Instructions:
- ☐ the written form has not been furnished or does not comply with the standard.
- ☐ the computer readable form has not been furnished or does not comply with the standard.

IV. Lack of unity of invention

1. In response to the invitation to restrict or pay additional fees the applicant has:
- ☐ restricted the claims.

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- ☐ paid additional fees.
- ☐ paid additional fees under protest.
- ☒ neither restricted nor paid additional fees.
2. ☐ This Authority found that the requirement of unity of invention is not complied and chose, according to Rule 68.1, not to invite the applicant to restrict or pay additional fees.
3. This Authority considers that the requirement of unity of invention in accordance with Rules 13.1, 13.2 and 13.3 is
- ☐ complied with.
- ☐ not complied with for the following reasons:
4. Consequently, the following parts of the international application were the subject of international preliminary examination in establishing this report:
- ☐ all parts.
- ☒ the parts relating to claims Nos. 1-15,28,29,31-34.

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes:	Claims	3,5-15,32-34
	No:	Claims	1,2,4,28,29,31
Inventive step (IS)	Yes:	Claims	5-8,14,15
	No:	Claims	1-4,9-13,32-34
Industrial applicability (IA)	Yes:	Claims	1-15,28,29,31-34
	No:	Claims	

2. Citations and explanations see separate sheet

VII. Certain defects in the international application

The following defects in the form or contents of the international application have been noted:
see separate sheet

VIII. Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

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see separate sheet

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Re Items III and IV

1. Claims 16-21, 30 and 22-27 relate, respectively, to a mains light switch having a smoke detector and a mains light switch including means for transmitting or receiving signals along a mains electricity cable. These claims were not searched since the applicant did not pay additional search fees for those two inventions. The lack of unity objection "a priori" raised by the International Search Authority is confirmed, since there are no common features between claims 1 and 16 or claims 1 and 22. Furthermore, the only common feature between claims 16 and 22, a mains light switch, is commonly used and consequently not new.
2. Claims 35-38 contain references to the drawings. According to Rule 6.2(a) PCT, claims should not contain such references except where absolutely necessary, which is not the case here.

Re Item V

3. Reference is made to the following documents:

D1: WO 97 01835 A (INVOTRONICS MANUFACTURING) 16 January 1997 (1997-01-16)
D2: WO 96 12291 A (VORA PRAMOD) 25 April 1996 (1996-04-25)
D3: US-A-4 290 052 (EICHELBERGER CHARLES W ET AL) 15 September 1981 (1981-09-15)
D4: US-A-5 508 700 (TAYLOR THOMAS M ET AL) 16 April 1996 (1996-04-16)
4. Claim 1 of the present application does not meet the requirements of Art. 33(2) PCT because its subject-matter is not new.

The document D1 discloses (see figures 1 and 7a and corresponding description) a switch device comprising:

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- a single switch oscillator (fig. 7a: 60) having a capacitive component;
- a face plate (fig. 1: insulator 30), preventing electrical contact between the user and the oscillator;
- a first capacitor plate (fig. 1: touch plate 25) arranged adjacent to the face plate;
- control means (fig. 7a: 65, 70 and 85) to sense the change in frequency (pag 19, lines 1-4) and to actuate the switch in response to such a change,

wherein an object placed adjacent to the face plate acts as a second capacitor plate thereby altering the frequency of the oscillator (page 8, lines 8-12).

The subject-matter of **claim 1** is consequently not new (Art. 33(2) PCT).

5. The additional features of dependent **claims 2 and 4** are also known from D1, namely:

- the face plate is made from electrically insulating material (page 4, lines 4-6);
- the detection of the shift in frequency of the switch oscillator is achieved within a microcontroller by software (figs. 8(a) and (b); page 22, lines 1-7).

6. Dependent **claims 3, 9-13, 32, 33 and 34** do not contain any features which, in combination with the features of any claim to which they refer, meet the requirements of the PCT in respect of inventive step, the reasons being as follows:

- i) The additional features of **claims 3, 9, 12, 13, 32 and 33** are disclosed by D2:

- the face plate is arranged so that it can be retrofit to existing switch mountings (fig. 12; page 43, lines 1-16);
- the components of the switching device are arranged on a printed circuit board (fig. 10; page 42, lines 9-23);
- the switching device is used to switch a light circuit (page 11, lines 32-34);
- the hardware within the light circuit provides a gradual ramping of the current to the light (page 11, lines 13-17);
- the switch is programmable by the user (page 6, lines 6-10);

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- the switch is programmed with a specific function prior to installation (page 35, lines 12-16).
 - ii) The additional features of **claims 10 and 11** are disclosed, respectively, by D3 (col. 1, l. 63-col. 2, l. 13) and D4 (col. 9, lines 58-65);
 - iii) The feature of **claim 34**, namely the selection of a function from a list, is merely one of several straightforward possibilities from which the skilled person would select, in accordance with circumstances, without the exercise of inventive skill, in order to implement a user interface for programming the switch.
7. The additional features of dependent **claims 5-8, 14 and 15** are neither known nor rendered obvious by the available prior art documents. As a consequence, these claims appear to meet the requirements of the PCT with respect to novelty and inventive step.

Re Item VII

8. The features of the claims are not provided with reference signs placed in parentheses (Rule 6.2(b) PCT).

Re Item VIII

9. Claim 2 refers to a "plate" which has not been defined in claim 1. In order to carry out the examination of claim 2 (see Item V) this feature was assumed as being the "face plate" mentioned in claim 1 and represented in figure 2 by the reference numeral 16.